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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,669	12/28/2001	Yi-Hua Peng	0941-0386P-SP	3673
2292	7590	03/14/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			PENDLETON, BRIAN T	
			ART UNIT	PAPER NUMBER
			2644	

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/028,669	Applicant(s) PENG, YI-HUA	
	Examiner Brian T. Pendleton	Art Unit 2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1, 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niino et al, US Patent 5,790,684 in view of Hofer et al, US Patent 5,345,509. In figure 1, Niino discloses an earphone based voice transmission device for receiving the voice signals from an user's eardrum and transmitting the voice to a communication device 8 comprising earplug 2 for collecting voice signals, earplug 1 for transmitting a received voice to the user's ear and an adjuster 5 having an amplifier for amplifying and transmitting an electronic audio signal to the communication device 8. Earplug 2, shown in detail in figure 2, comprises a sensor 12 (converter) for converting the voice collecting by the earplug into an output electronic audio signal. Niino discloses separate earplugs for receiving and transmitting and does not disclose a single earplug for collecting the voice from the user and transmitting a received voice to the user's ear wherein the converter also converts an input electronic audio signal from the communication device to voice. Hofer discloses a transducer with ear canal pickup in figure 1 comprising an earplug 31, plate 26, ring 28, and bi-directional transducer 20. The transducer 20 acts as a converter for converting voice into an output electronic audio signal and converting an input electronic audio signal from a device to voice signals. It would have been obvious to one of ordinary skill in the art at the time of invention to substitute the transducer assembly of Hofer

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for the earplugs 1 and 2 in Niino for the purpose of two-way conversation on a communication device with a reduced number of components. Claim 1 is met. As to claim 2, the plate 26 of Hofer reads on a voice collecting hood. Regarding claim 4, an alternative embodiment of Niino in figure 4 discloses a wireless configuration whereby an inherent amplifier is wirelessly connected to a converter.

Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niino in view of Hofer as applied to claims 1 and 2 above, and further in view of Stites, III, US Patent 5,208,867. The combination of Niino and Hofer do not disclose a voice transmitting tube connected to the earplug and the voice collecting hood for transmitting the voice collected by the earplug to the voice collecting hood and transmitting the voice collected by the voice collecting hood to the earplug. In figure 5, Stites, III discloses a voice transmission system for a two-way communication system comprising an earpiece (earplug) 41, a speaker/microphone module (such as element 35 shown in figure 2), and sound tubes 53 and 54. The sound tubes transmit voice signals to and from the earplug to a voice collecting hood where the speaker/microphone module resides. The benefit of this configuration was to decrease the weight of the earplug and its complexity by having the processing electronics external to the earplug. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate a voice transmitting tube in the combination of Niino and Hofer for the purpose of creating a lighter earplug assembly. Claim 3 is met. Regarding claim 5, the combination does not disclose a control switch for controlling the unidirectional transmission between the output and input electronic audio signals. Stites discloses a push-to-talk switch which controls the transmission

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between the input voice signals and output voice signals. It would have been obvious to one of ordinary skill in the art at the time of invention to include such a switch in the combination of Niino and Hofer for the purpose of negotiating the flow of voice signals, as was practiced in the art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Pendleton whose telephone number is (703) 305-9509. The examiner can normally be reached on M-F 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (703) 305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian T. Pendleton
Examiner
Art Unit 2644



btp